

**1 OCTOBER 2000**



**Maintenance**

**COMMUNICATIONS SECURITY (COMSEC)  
EQUIPMENT MAINTENANCE AND  
MAINTENANCE TRAINING**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

---

**NOTICE:** This publication is available digitally on the AFDPO WWW site at: <http://afpubs.hq.af.mil>.

---

OPR: HQ USAF/ILMM (CMSgt Paul R. Karch)      Certified by: HQ USAF/ILM (Brigadier General  
Terry L. Gabreski)

Supersedes AFI 21-109, 1 June 1996.

Pages: 18  
Distribution: F

---

This instruction implements AFD 21-1, Aerospace Equipment Maintenance Management Policy, and DoD Instruction 4660.2, Communications Security (COMSEC) Equipment Maintenance and Maintenance Training, June 3, 1992. It provides the directive requirements for the Air Force's implementation of the COMSEC Equipment Maintenance and Training program ensuring only qualified technicians repair, maintain, or approve installation of communications security (COMSEC) equipment; it authorizes on-the-job training (OJT) on selected ancillary equipment maintenance tasks; and it authorizes specialized training packages (STP) to train technicians with certain Air Force specialty codes (AFSC). It prescribes the minimum training requirements for all personnel who load cryptographic key; set equipment configurations; or maintain secure telecommunications equipment, equipment that contains COMSEC components, or performs cryptographic functions. It does not alter OJT training (proficiency or qualification training) described by enlisted specialty training directives. It describes DD Form 1435, **COMSEC Maintenance Training and Experience Record** and DD Form 2625, **Controlled Cryptographic Item (CCI) Briefing**. This instruction applies to all Air Force personnel, including Air National Guard units and members and contractor personnel performing maintenance on Air Force COMSEC equipment. Maintain and dispose of all records created as a result of prescribed processes in accordance with AFMAN 37-139, "Records Disposition Schedule."

**SUMMARY OF REVISIONS**

This revision corrects unit identification and address information for ordering Specialized Training Packages (STP) and generally updates terminology and unit designations. Table A2.1, STP Courses and Table A3.1, Cryptographic Equipment Training Requirements Listing has been revised to add/remove equipment as applicable and updated course changes. Table A4.1, Authority for Exemptions to Certification and Training Policy has been revised to allow technicians to work on additional COMSEC equipment. Requirements for employees of companies or corporations under contract who require Air Force training was added.

## ***Section A—Responsibilities***

### **1. HQ USAF/ILMM:**

- 1.1. Develops Air Force policy on COMSEC equipment maintenance.
- 1.2. Coordinates with other military services, government agencies, and the National Security Agency (NSA).

### **2. AETC :**

- 2.1. Serves as the Air Force COMSEC maintenance training authority by:
  - 2.1.1. Coordinating course content with NSA.
  - 2.1.2. Issuing DD Form 1435 to each first time graduate. Informs organizations when technicians complete courses so appropriate documentation can be made.
  - 2.1.3. Using existing government training facilities instead of contractor training facilities, where practical.
  - 2.1.4. Preparing, publishing, and controlling material needed for formal COMSEC equipment maintenance training, STPs, and CQTPs. AETC ensures courses include principles and application of TEMPEST, security threat awareness, and any unique security requirements into training materials.
  - 2.1.5. Implementing Interservice Training agreements.

### **3. Air Force Communications Agency (AFCA):**

- 3.1. Develops COMSEC rules, directives, procedures, and instructions.
- 3.2. Helps AETC develop, evaluate, and implement STPs and CQTPs for new COMSEC equipment and systems.
- 3.3. Helps major commands (MAJCOM) develop supplementary security procedures for unique applications.

### **4. MAJCOMs that Operate, Install, or Maintain COMSEC Equipment Must:**

- 4.1. Ensure appropriate personnel are trained to a level commensurate with their duties when tasked to maintain or install COMSEC equipment, systems using COMSEC functions, or equipment with COMSEC components.
- 4.2. Assess COMSEC maintenance training needs. Submit a list of these needs to HQ AETC/DOO.

### **5. Unit Commanders Must:**

- 5.1. The unit commander or commander's representative (for example, Unit Education and Training Manager or Maintenance Training Manager) must maintain certification information for each COMSEC maintenance technician according to paragraph 7.
- 5.2. The commander or commander's representative (for example, Unit Education and Training Manager or Maintenance Training Manager) must ensure personnel are briefed on Controlled Cryptographic Items (CCI) and file a DD Form 2625 in each trainee's records.

**Section B—Training and Certification**

**6. Personnel Training and Certification.** Personnel who perform initial check-outs, change internal straps, or maintain COMSEC equipment or portions of systems that contain COMSEC functions, must be certified on that equipment, except when exempted (see Paragraph 9). Attachment 3 contains a listing of all cryptographic equipment and the required training for technicians and operators.

**6.1. Maintainers:**

6.1.1. Maintain current certification: Technicians must complete an approved course of instruction for the specific type of COMSEC equipment. They must also achieve and maintain proficiency in any one of these ways:

6.1.1.1. Complete proficiency training according to an initial job qualification standard (JQS).

6.1.1.2. Maintain proficiency by performing maintenance on the equipment during the past 36 months.

6.1.1.3. Renew proficiency by re-accomplishing the JQS if maintenance has not been performed on the equipment in the past 36 months.

6.1.2. COMSEC maintenance technicians certified for full maintenance are automatically qualified to perform limited maintenance on that specific equipment item.

6.1.3. Technicians may be certified to maintain associated COMSEC equipment if both of the following are met:

6.1.3.1. They are certified to maintain the associated COMSEC equipment.

6.1.3.2. They are trained in TEMPEST considerations for the associated COMSEC equipment.

6.1.4. Technicians formally trained on COMSEC equipment at the North Atlantic Treaty Organization training facility at Latina, Italy, are qualified to maintain similar United States equipment.

**6.2. Users/Operators/Organizational Maintainers:**

6.2.1. Personnel who perform user, operator, or organizational maintenance must (see glossary of terms for definition of user/operators/organizational maintenance):

6.2.1.1. Successfully complete the COMSEC Awareness Training course (STP L6AZS2E351-013)

6.2.1.2. Receive a CCI briefing on DD Form 2625, Controlled Cryptographic Items (CCI) Briefing.

6.2.1.3. Must have a DD Form 2625 on file in their training records.

**EXEMPTION:** Individuals previously qualified as COMSEC maintenance technicians via award of AFSC 2E3X1, or equivalent, or by completion of formal training course(s) which include instructions in COMSEC doctrine, policy, and procedures and includes information on security threat awareness and awareness of protective technology are exempt from the requirement of paragraph 6.2.1.1 However, these technicians must still adhere to the requirement of paragraphs 6.2.1.2 and 6.2.1.3..

6.2.2. Personnel not maintenance qualified but required to remove COMSEC equipment covers in order to verify or change strapping options must complete the appropriate CQTP (see Table A2.2) in addition to course L6AZS2E351-013.

### **6.3. STP/CQTP Trainer's qualifications:**

6.3.1. Successfully complete an approved course of instruction.

6.3.2. Hold a 5 skill level as a minimum. Civilian members must be at least a GS-7 or WG-9.

6.3.3. Hold current certification for maintaining the equipment or similar equipment as identified in attachment 2, Table A2.1 (to instruct a STP).

6.3.4. Hold certification to maintain or strap the equipment (to instruct a CQTP).

### **6.4. Ordering STP/CQTPs:**

6.4.1. Maintenance organizations that request an STP or CQTP must have a qualified trainer available to conduct the training, access to the equipment, maintenance documents, cryptographic operations manuals (KAO), cryptographic maintenance manuals (KAM), Limited Maintenance Manuals (LMM), and keying material.

6.4.2. To order STP or CQTP packages see attachment 2, paragraph A2.2., A2.6. through A2.8. for details.

6.4.3. Trainees must meet the training prerequisites outlined in attachment 2, paragraph A2.5.

6.4.4. Do not use STPs and CQTPs as part of a career development course or to prepare personnel for specialty knowledge tests or AFSC upgrades. Attachment 2 lists all available STPs, CQTPs, and their prerequisite AFSCs.

## ***Section C—Recording Technician Certification***

**7. Organizations With COMSEC Maintenance Technicians.** Air Force organizations with technicians or installers performing COMSEC maintenance will:

7.1. Appoint a COMSEC Equipment Certifier in writing who certifies the DD Form 1435 or automated product.

7.2. Keep a record of certification for COMSEC equipment maintenance technicians, including cryptographic certification for non-COMSEC equipment, using Automated Training Management Systems (e.g., Core Automated Maintenance System or Integrated Maintenance Data System).

7.2.1. Organizations that do not have access to an Automated Training Management System must use DD Form 1435. Follow the guidance on the back of the DD Form 1435. In addition:

7.2.1.1. In column c, enter "resident," or "STP."

7.2.1.2. The Air Force does not require an "annual or PCS review" as described on DD Form 1435. Certification remains current as long as technicians meet the requirements of paragraph 6.1.1.

7.2.1.3. Record COMSEC ancillary-equipment maintenance training on DD Form 1435. If a technician has more than one DD Form 1435, transcribe all entries to one master form and give the others to the technician.

7.3. Keep a transcript (either a copy of the Automated Training Management System data base or DD Form 1435) of each military technician's current certification with AF Form 623, **On-the-Job Training Record**.

7.4. Keep a transcript (either a copy of the Automated Training Management System database or DD Form 1435) of each civilian technician's current certification with AF Form 971, **Supervisor's Employee Brief**.

7.5. Reconstruct lost information using the Air Force automated personnel data system as the primary source to validate COMSEC equipment maintenance formal training.

7.5.1. Other sources include records kept by NSA, technical schools, entries on AF Forms 673 or 971.

#### *Section D—Personnel Exempt from COMSEC Certification and Training Requirements*

#### **8. Exempt Personnel.** Certification is not required when:

8.1. Installing equipment in accordance with a time compliance technical order (TCTO) or an installation plan approved by Air Intelligence Agency or Air Force Material Command. However, only certified maintenance technicians may make or verify the accuracy of any alignments, adjustments, or equipment repairs.

8.2. Removing or replacing complete COMSEC equipment items in prewired receptacles as long as the uncertified technician makes no changes or adjustments on COMSEC equipment.

8.3. Servicing a piece of equipment that, according to NSA, training, or certification, on a similar equipment item satisfies the training requirements for similar equipment as outlined in attachment 4.

8.4. The Cryptological Systems Group (CPSG) may use uncertified technicians when: Note: A currently certified maintenance technician must identify and assign the maintenance tasks and perform test and acceptance of repaired equipment before it is installed in the next higher assembly or released for shipment to the user.

8.4.1. Operating general-purpose COMSEC automatic test equipment (ATE).

8.4.2. Replacing components on COMSEC subassemblies that were previously identified as defective by ATE or a certified maintenance technician.

8.4.3. Performing limited maintenance on designated test sets (ST-XX series).

8.5. CPSG/LTE engineers:

8.5.1. Who design and approve interface configurations and determine strapping connections for COMSEC equipment may implement and certify the configurations and connections involving new or unusual applications.

8.5.2. May only certify configurations and connections on COMSEC equipment for which they are formally certified by the Chief of the CPSG/LTE Engineering Division. A certified maintenance technician must complete all adjustments and repairs to the COMSEC equipment.

8.6. Noncertified technicians may remove and replace embedded COMSEC circuit boards if they:

8.6.1. Complete course L6AZS2E351-013.

8.6.2. Comply with TEMPEST and other security practices.

**9. Forms Prescribed:**

9.1. DD Form 1435, **COMSEC Maintenance Training and Experience Record.**

9.2. DD Form 2625, **Controlled Cryptographic Item (CCI) Briefing Form.**

MICHAEL E. ZETTLER, Lt General, USAF  
Deputy Chief of Staff/Installations and Logistics

## Attachment 1

## GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

**References**

AFPD 21-1, *Aerospace Equipment Maintenance Management Policy*

DoD Instruction 4660.2, *Communications Security (COMSEC) Equipment Maintenance and Maintenance Training*

DD Form 1435, *COMSEC Maintenance Training and Experience Record*

DD Form 2625, *Controlled Cryptographic Item (CCI) Briefing*

**Terms****Ancillary Equipment:**

Modems.

TSEC/H- and H-/TSEC.

Cryptoancillary units that don't actually encrypt or decrypt information, but are required by the system for successful operation.

**Approved Course of Instruction**--A course approved by the National Security Agency (NSA) including:

Resident training at DoD-approved facilities.

Contractor training.

Specialized Training Packages (STP).

**Approved Training Facility**--A DoD or vendor facility approved by the Cryptographic Maintenance Training Authority for courses on COMSEC equipment maintenance.

**Automatic Test Equipment (ATE) Support Maintenance**--Can include physical and functional certification of COMSEC equipment and systems. The scope of this maintenance includes maintenance to the piece-part for all non-ATE supported components of a specific COMSEC equipment or system.

**Certification**--The unit commander or a representative the commander appoints in writing:

Validates certification following an approved course of instruction only after completion of qualification training through OJT. (See definitions for qualified, full, and limited maintenance technician; and technicians qualified to strap COMSEC equipment guidelines.)

Reviews, updates, and signs DD Form 1435.

Certifies technicians for full or limited maintenance.

**Composite Training**--Combines traditional training and computer or interactive videodisk training.

**Computer Based Training**--Combines software programming, computer generated text and graphics, and sometimes a sound track, to guide the student through a self-paced course of instruction.

**COMSEC Equipment**--[NSA definition] Equipment designed to secure communication transmissions by converting information to a form unintelligible to an unauthorized interceptor and reconverting the

information to its original form for an authorized recipient. Also includes equipment designed to aid in, or as an essential part of, the conversion process. It includes cryptographic, cryptoancillary, cryptoproduction, and authentication equipment. It can either stand alone or incorporate embedded COMSEC functions. It encompasses transmission security (TSEC), joint electronics type designation system (JETDS), computer security (COMPUSEC), and commercial-nomenclature equipment, including equipment designated as controlled cryptographic items.

**COMSEC Qualification Training Packages (CQTP)**--Standardized On-the-Job Training (OJT) provides knowledge and hands-on training to check and/or perform previously set strapping options on applicable COMSEC equipment.

**Controlled Cryptographic Item (CCI)**--[NSA definition] Secure telecommunications or information handling equipment, or associated cryptographic component, which is unclassified but controlled. Once CCI has been keyed, it assumes the same security classification as the key it contains.

**Cryptographic Component**--[NSA definition] The hardware or firmware embodiment of the cryptographic logic in equipment. A cryptographic component may be a modular assembly, a printed wiring assembly, a microcircuit, or a combination of these.

**Field Training**--Training not conducted at an established DoD component or contractor or vendor training facility.

**Formal COMSEC Training**--[NSA definition] Classroom and laboratory instruction developed from NSA courses of instruction; conducted by qualified COMSEC maintenance personnel.

**Full Maintenance**--[NSA definition] Repairs with no limitation. Maintenance includes limited, organizational and intermediate, and depot maintenance to the level authorized by COMSEC maintenance manuals. Depot-level maintenance corresponds to full maintenance with the additional requirements of overhaul, physical and functional certification, engineering support, design, development, testing of modifications, and configuration control. Formal maintenance training on individual equipment is required.

**Limited Maintenance**--[NSA definition] Level of maintenance which is restricted to operational checks and restoration of normal operations by removing and replacing pluggable assemblies and components. Also allowed are cleaning, adjusting, some strapping option routines, and some soldering. Soldering for a limited maintenance technicians is restricted to removal, replacement, and repair of chassis-mounted components such as fuses and switches. Authorized procedures for specific equipment are documented in COMSEC limited maintenance manuals (AFKAMs/KAMs/LMMs) or as a part of the system's technical order. Individual equipment limited-maintenance training, using STPs or resident courses is required. Limited-maintenance technicians may never remove or replace components soldered on printed wiring assemblies. (See attachment 4 for exceptions.)

**Qualified ATE Maintenance Technician**--[NSA definition] Personnel who have satisfactorily completed an approved course of instruction on the boards or components contained in the COMSEC equipment which are not tested and certified by the ATE.

**Qualified Full-Maintenance Technician**--[NSA definition] An individual who has satisfactorily completed an approved course of instruction for full maintenance of a specific type of COMSEC equipment, who has a signed job qualification standard (JQS) (AF Form 797, Job Qualification Standard Continuation/Command) on file, and who is currently certified.

**Qualified Limited-Maintenance Technician**--[NSA definition] An individual who has satisfactorily completed at least an approved course of instruction for limited maintenance of a specific type of COM-



SEC equipment, is knowledgeable of proper soldering techniques, has a signed JQS on file, and is currently certified.

**Qualified Specialized Training Package (STP) Trainers:--**

Meet the requirements of paragraph 6.3.

Are designated by the unit commander or commander's representative to conduct qualification training on specific COMSEC equipment.

**Specialized Training Package--**A self-paced, type 6 training course prepared by AETC, approved by NSA, and administered by a qualified STP Trainer. STPs consist of lesson plans, test materials, instructions for the trainer, instructions for the students, policy, doctrine, and procedures necessary to conduct training.

**Technicians Qualified to Strap COMSEC Equipment:--**

Completed a resident COMSEC training course or a STP containing strapping procedures or

Successfully completed course L6AZS2E351-013, COMSEC Awareness training and the applicable CQTP (See table A2-2).

Have a signed JQS on file.

**User, Operator and Organizational Maintenance--[NSA definition]** For the purposes of this instruction only, these terms refer to or describe very limited removal and replacement actions which may be taken by aircrew, operators, attendants, or other non-maintenance people working near COMSEC equipment. Maintenance consist of inspecting, servicing, lubricating, adjusting and replacing parts, minor assemblies, and subassemblies that are external to the COMSEC equipment.

**Attachment 2****ENROLLING IN SPECIALIZED TRAINING PACKAGES (STP) AND COMSEC  
QUALIFICATION TRAINING PACKAGES (CQTP)**

**A2.1.** AETC announces STPs as they become available through AFCAT 36-2223, USAF Formal Schools catalog or the new on-line ETCA-AFCAT at <http://www.afpc.randolph.af.mil/> then click on ENLISTED then TRAINING.

**A2.2.** Order STPs from the 342 TRS/TTSCD, 1220 Truempter St, Ste 1, Lackland AFB TX 78236-5546, DSN 473-2133, FAX 473-4553.

**A2.3.** Each STP includes training objectives on COMSEC doctrine, policy, and procedures and includes information on security threat awareness and awareness of protective technology.

**A2.4.** Each STP and CQTP includes specific controls and administrative procedures.

A2.4.1. CQTPs are training aids and do not require enrollment or end-of-course tests. Record strap-ping qualification on the JQS when trainees satisfactorily perform procedures.

A2.4.2. Record STP training completion on DD Form 1435 or in Automated Training Management System after verification of successful completion (receipt of AF Form 1256).

**A2.5.** Air Force Specialty Code (AFSC) prerequisites: Table A2.1 lists current STP courses. Table A2.2 list current CQTPs.

A2.5.1. AFSC prerequisites to order STPs are 2EXXX, 2A0XX, 2A1XX, 2A2XX, 2A3XX, 2A4XX, 2A5XX or civilian equivalent. **NOTE:** AFSCs 3C0X1, 3C1X1, 3C2XX or civilian equivalent may order only STP L6AZS2E351-013 to satisfy COMSEC Awareness Training requirements outlined in paragraph 6.2.1.

A2.5.2. AFSC prerequisites to order CQTPs are 2EXXX or 3CXXX.

**A2.6.** Contracting Personnel: Employees of companies or corporations under contract to the Air Force, other armed forces, or other government agencies who require Air Force training must submit requests IAW AFCAT 36-2223, paragraph 1-52.

**A2.7.** For each STP request, the commander or commander's representative (for example, Unit Training Manager or Maintenance Training Manager) provides: See attachment 5 for sample letter.

A2.7.1. Course Number requested. (e.g. L6AZS2E351-013) See table A2.1 for course list.

A2.7.2. Course title requested. (e.g. COMSEC Awareness Training)

A2.7.3. Availability of a qualified STP trainer. **NOTE:** Table A2.1 identifies STP Trainer equipment qualifications. For example, an individual meeting the requirements of paragraph 6.3. and certified to maintain any KG equipment item may act as an STP Trainer for course L6AZS2E351-001, TSEC/KG-81, Limited Maintenance.

A2.7.4. Availability of equipment, maintenance key material, and technical manuals.

A2.7.5. Certification that all trainees meet the AFSC prerequisites.

A2.7.6. Point of contact with voice and FAX phone numbers.

A2.7.7. Mailing address for the unit and the trainer.

**A2.8.** For each CQTP request, the commander or commander's representative provides:

A2.8.1. Title of CQTP requested (See table A2.2 for list).

A2.8.2. Mailing address for unit and trainer.

A2.8.3. Availability of equipment and technical manuals to complete training using the requested CQTPs.

**A2.9.** A technician who fails the end-of-course test may repeat an STP and retest within 60 days. After a second failure, contact the 344 TRS/TTSCD 1220 Truempter St., Ste. 1, Lackland AFB TX 78236-5546. (DSN 473-2133) for instructions.

**Table A2.1. Specialized Training Package Courses.**

<b>Course Number:</b>	<b>Course Title:</b>	<b>STP Trainer Qualification Equipment Group:</b>
L6AZS2E351-000	TSEC/KG-30 Family, Limited Maintenance	Any KG Equipment
L6AZS2E351-001	TSEC/KG 81, Limited Maintenance	Any KG Equipment
L6AZS2E351-002	TSEC/KG 84 Series, Limited Maintenance	Any KG/KY Equipment
L6AZS2E351-003	TSEC/KI I Series, Limited Maintenance	Any KI Equipment
L6AZS2E351-005	TSEC/KY 57/58, Limited Maintenance	Any KY Equipment
L6AZS2E351-006	TSEC/KY 65/75, Limited Maintenance	Any KY Equipment
L6AZS2E351-008	TSEC/KG 94/94A/KG 194/194A, Limited Maintenance	Any KG Equipment
***L6AZS2E351-009	TSEC/KGV 8/11/ST 61, Depot Maintenance	Any Depot KG Equipment
L6AZS2E351-010	TSEC/KY 71, Limited Maintenance	Any KY Equipment
L6AZS2E351-011	TSEC/CI 10, Limited Maintenance	Any Non CCI/KG/KI Equipment
L6AZS2E351-012	TSEC/KY 68/78, Limited Maintenance	Any KY Equipment
L6AZS2E351-013	COMSEC Awareness Training	Any Equipment/COMSEC Responsible Officer
L6AZS2E351-015	TSEC/KGR 28/KGI 7/ST 19, Limited Maintenance	Any Non CCI/KG/KI Equipment
L6AZS2E351-016	TSEC/KG-28/29, Limited Maintenance	Any Non-CCI/KG/KI Equipment
L6AZS2E351-018	TSEC/KG-83, Operational Certification	KG-81 / KG-112
L6AZS2E351-019	TSEC/KY-90, Limited Maintenance	Any KY Equipment
***L6AZS2E351-020	Generic Microprocessor	Any COMSEC Equipment
L6AZS2E351-021	TRI-TAC (TTC-39/TYC-39/TTC-42) COMSEC Equipment, Limited Maintenance	Any TRI-TAC Equipment
***L6AZS2E351-023	KG-95 Series, Depot Maintenance	Any Non-CCI/KG/KI Equipment
***L6AZS2E351-026	TSEC/KI-IC, Depot Maintenance	Any Depot KG Equipment
***L6AZS2E351-027	TSEC/KI-111/112/113, Depot Maintenance	Any Depot KG Equipment
L6AZS2E351-028	TSEC/KG-40A, Limited Maintenance	Any KG Equipment
L6AZS2E351-029	TSEC/KY-99, Limited Maintenance	Any KY Equipment
***L6AZS2E351-032	TSEC/KG-81, Depot Maintenance	Any Depot KG Equipment
***L6AZS2E351-033	TSEC/KG-144, Depot Maintenance	Any Depot KG Equipment
***L6AZS2E351-034	MYK-7, Depot Maintenance	Any Depot MYK Equipment
L6AZS2E351-036	TSEC/KG-189, Limited Maintenance	Any KG Equipment

\*\*\* - Course is only available to Depot Maintenance Facilities.

**Table A2.2. COMSEC Qualification Training Package Courses.**

<b>CQTP Number</b>	<b>Title</b>
ANT 8101	TSEC/KG-81 Strapping
AMT 8401	TSEC/KG-84 Strapping
AOT 9401	TSEC/KG-94/94A Strapping
AFT 1001	TSEC/CI-10 Strapping
ART 6801	TSEC/KY-68-78 Strapping

## Attachment 3

**REQUIRED TRAINING FOR CRYPTOGRAPHIC EQUIPMENT TECHNICIANS AND OPERATORS**

**A3.1.** See Table A3.1 for Cryptographic Equipment Training Requirements.

**A3.2.** Administrative procedures:

A3.2.1. Note that all L6 courses are Specialized Training Packages (STPs) - For enrollment instructions, see attachment 2.

A3.2.2. For enrollment instructions for L3, L4, and L5 courses, see AFCAT 36-2223, USAF Formal Schools catalog or the new on-line ETCA-AFCAT at <http://www.afpc.randolph.af.mil/> then click on ENLISTED then TRAINING.

A3.2.3. The following are prerequisites for enrollment in L4AST2E351-026:

A3.2.3.1. Complete two formal COMSEC equipment maintenance courses (resident or STP), one of which should be in Automatic Test Equipment (ATE) or Built in Test Equipment (BITE).

A3.2.3.2. Complete STP L6AZS2E351-020, Generic Microprocessor.

A3.2.3.3. Hold US citizenship and possess a Secret clearance.

**Table A3.1. Cryptographic Equipment Training Requirements Listing.**

<b>Type of Equipment</b>	<b>Type of Maintenance</b>	<b>Required Training</b>
AN/CSZ-1	Depot	L4AST2E351-026
AN/CSZ-1A	Depot	L4AST2E351-026
AN/CSZ-2	Depot	L4AST2E351-026
AN/CSZ-3	Depot	L4AST2E351-026
AN/CSZ-4A	Depot	L4AST2E351-026
AN/CSZ-5	Depot	L4AST2E351-026
AN/CSZ-6	Depot	L4AST2E351-026
AN/CYZ-1	Operator	L6AZS2E351-013
AN/CYZ-2	Operator	L6AZS2E351-013
AN/CYZ-3	Operator	L6AZS2E351-013
AN/CYZ-4	Operator	L6AZS2E351-013
AN/CYZ-5	Operator	L6AZS2E351-013
AN/CYZ-6	Operator	L6AZS2E351-013
AN/CYZ-7	Operator	L6AZS2E351-013
AN/CYZ-9	Operator	L6AZS2E351-013
AN/CYZ-10,10A	Operator	L6AZS2E351-013
AN/CYZ-11	Operator	L6AZS2E351-013
AN/CYZ-12	Operator	L6AZS2E351-013
AN/CYZ-13	Operator	L6AZS2E351-013
AN/CYZ-17	Operator	L6AZS2E351-013
AN/CYZ-21	Operator	L6AZS2E351-013
AN/PRC-II7B(C)	Operator	L6AZS2E351-013
AN/PRC-139	Depot	L4AST2E351-026
CI-1	Depot	L4AST2E351-015
CI-10/ST-60	Depot	L4AST2E351-019
CI-10/ST-60	Limited	L4AST2E351-018
CI-10	Limited	L6AZS2E351-011

Type of Equipment	Type of Maintenance	Required Training
CI-14	Depot	L4AST2E351-007
FASCINATOR EQUIPMENT	Depot	L4AST2E351-026
FASCINATOR MODULE	Depot	L6AZS2E351-013
KG-28/29	Depot	L3AZR2E351-020
KG-28/29	Limited	L6AZS2E351-016
KG-30 FAMILY	Depot	L3AZR2E351-005
KG-30 FAMILY	Limited	L6AZS2E351-000
KG-40/40A	Depot	L4AST2E351-026
KG-40A	Limited	L6AZS2E351-028
KG-43/44/44A	Depot	L4AST2E351-014
KG-45/ST-57	Depot	L4AST2E351-024
KG-45	Limited	L6AZS2E351-017
KG-46	Depot	L4AST2E351-013
KG-47, KG-47A, KG-77	Depot	L4AST2E351-012
KG-57	Depot	L4AST2E351-009
KG-66 (E-1), KG-66, KG-66A, KGR-66, SO-66, KG-67	Depot	L4AST2E351-008
KG-68 (E-1), KG-68	Operator	L6AZS2E351-013
KG-81, KG-81 (E-1), (E-2), (P-1)	Depot	L6AZS2E351-032
KG-81, KG-81 (E-1), (E-2), (P-1)	Limited	L6AZS2E351-001
KG-82, KG-82A	Limited	L6AZS2E351-021
KG-84/84A/84C/CCM	Depot	L4AST2E351-026
KG-84/84A/84C	Limited	L6AZS2E351-002
KG-94/94A	Depot	L4AST2E351-026
KG-94 (E-1), KG-94A	Limited	L6AZS2E351-008
KG-95	Depot	L6AZS2E351-023
KG-109	Depot	L6AZS2E351-025
KG-109	Limited	L6AZS2E351-024
KG-144	Depot	L6AZS2E351-033
KG-168	Operator	L6AZS2E351-013
KG-194, KG-194A	Depot	L4AST2E351-026
KG-194, KG-194A	Limited	L6AZS2E351-008
KGR-28/KGT-7/ST-19	Limited	L6AZS2E351-015
KGR-68	Depot	L6AZS2E351-013
KGR-96	Depot	L4AST2E531-004
KGV-8, KGV-8A (E-1), KGV-8 (E-1) (E-2), KGV-8B (E-1), KGV-8B, & KGV-8C	Depot	L6AZS2E351-009
KGV-9	Operator	L6AZS2E351-013
KGV-11, KGV-11A (E-1), KGV-11(E-1) (E-2), KGV-11B (E-1), & KGV-11B/C	Depot	L6AZS2E351-009
KGV-13	Operator	L6AZS2E351-013
KGV-66, KGV-66 (E-1), & KGV-66A	Depot	L6AZS2E351-026
KGV-68	Depot	L6AZS2E351-013
KGV-69	Operator	L6AZS2E351-013
KGV-76 (E-1) (P-1)	Operator	L6AZS2E351-013
KGV-77 (E-1) (P-1)	Operator	L6AZS2E351-013
KGV-99, KGV-99 V-1	Operator	L6AZS2E351-013
KI-1A, KI-1C	Limited	L6AZS2E351-003
KI-1C	Depot	L6AZS2E351-026

Type of Equipment	Type of Maintenance	Required Training
KI-22	Depot	L4AST2E351-026
KI-23	Depot	L3AZR2E351-026
KI-23	Limited	L6AZS2E351-014
KI-25	Depot	L3AZR2E351-024
KI-35	Depot	L4AST2E351-010
KI-36	Depot	L4AST2E351-005
KI-37	Depot	L4AST2E351-006
KI-45	Depot	L4AST2E351-020
KI-52	Operator	L6AZS2E351-013
KI-53	Operator	L6AZS2E351-013
KIK-111(E-1), (P-1)	Operator	L6AZS2E351-013
KIR-123, KIV-123, & KIR-123A	Operator	L6AZS2E351-013
KIT-23	Operator	L6AZS2E351-013
KIV-1, KIV-2, KIV-3, KIV-4, KIV-5	Limited	L6AZS2E351-003
KIV-7	Depot	L4AST2E351-026
KIV-7	Operator	L6AZS2E351-013
KIV-42	Depot	L4AST2E351-026
KL-42, KL-42 (E-1), KL-43, KL-43 (E-1), KL-43A/B/C/D/E	Operator	L6AZS2E351-013
KL-53A/B	Operator	L6AZS2E351-013
KL-85A/B	Operator	L6AZS2E351-013
KL-86A/B	Operator	L6AZS2E351-013
KLR-43 (E-1)	Operator	L6AZS2E351-013
KLT-43 (E-1)	Operator	L6AZS2E351-013
KOI-18	Operator	L6AZS2E351-013
KOK-12 (V-1) (V-2) (V-3) (E-1)	Operator	L6AZS2E351-013
KOK-13	Depot	L4AST2E351-026
KOK-15	Operator	L6AZS2E351-013
KOK-16	Operator	L6AZS2E351-013
KOK-22	Depot	L4AST2E351-026
KSX-1, KSX-1(E-1)	Operator	L6AZS2E351-013
KY-40, KY-40 (E-1)	Operator	L6AZS2E351-013
KY-57/58	Depot	L4AST2E351-026
KY-57/58	Limited	L6AZS2E351-005
KY-65, KY-65 (E-1), KY-65A	Depot	L4AST2E351-026
KY-65, KY-65 (E-1), KY-65A	Limited	L6AZS2E351-006
KY-67, KY-67A, HYP-67	Limited	L6AZS2E351-022
KY-68, KY-68 (E-2), KY-68A	Depot	L4AST2E351-026
KY-68, KY-68 (E-2), KY-68A	Limited	L6AZS2E351-012
KY-71, KY-71(E-1), (P-1), (P-2), (P-3), KY-71A	Limited	L6AZS2E351-010
KY-72	Operator	L6AZS2E351-013
KY-75, KY-75 (E-1), KY-75A	Depot	L4AST2E351-026
KY-75, KY-75 (E-1), KY-75A	Limited	L6AZS2E351-006
KY-78, KY-78 (E-1)	Depot	L4AST2E351-026
KY-78, KY-78 (E-1)	Limited	L6AZS2E351-012
KY-90	Depot	L4AST2E351-026
KY-90 (E-1)	Limited	L6AZS2E351-019
KY-99, KY-99 (E-1)	Depot	L4AST2E351-026
KY-99, KY-99 (E-1)	Limited	L6AZS2E351-029
KYK-3/5/12	Operator	L6AZS2E351-013

<b>Type of Equipment</b>	<b>Type of Maintenance</b>	<b>Required Training</b>
KYK-13, KYK-13A	Operator	L6AZS2E351-013
KYK-26	Operator	L6AZS2E351-013
KYK-28, KYK-38	Operator	L6AZS2E351-013
KYK-71	Operator	L6AZS2E351-013
KYK-72	Operator	L6AZS2E351-013
KYK-76	Operator	L6AZS2E351-013
KYK-77	Operator	L6AZS2E351-013
KYV-2, KYV-2 (E-1), KYV-2A, KYV-2A (E-1)	Depot	L4AST2E351-026
KYV-5, KYV-5 (E-1) (E-2)	Depot	L4AST2E351-026
KYX-15, KYX-15A	Limited	L6AZS2E351-013
Z-ALN/TSEC PERMUTES ASSEMBLY (FULL)	Depot	L4AST2E351-011



## Attachment 4

# **OPERATORS AND TECHNICIANS EXEMPT FROM THE CERTIFICATION AND TRAINING REQUIREMENTS**

**Table A4.1. Authority for Exceptions to Certification and Training Policy.**

<b>EXCEPTION</b>	<b>AUTHORITY</b>
Technicians certified to perform limited or full maintenance on the KG-84/84A may perform limited maintenance and strapping options on the KG-84C.	NSA Policy Letter Serial: Y22-021-88, 11 February 1988.
Technicians certified to perform limited maintenance on the KG-81 KG-94/94A may perform limited maintenance on the KG-194/194A.	NSA Policy Letter Serial: Y224-015-92, 24 June 1992.
Technicians certified to perform limited maintenance on the KY-57/58 may perform limited maintenance on the KY-67/67A.	NSA Policy Letter Serial: Y224-016-92, 4 May 92.
Technicians certified to perform limited or full maintenance on the KI-1A may perform limited maintenance on the KI-1C.	NSA Policy Letter Serial: Y22-018-89, 12 April 1989.
Technicians certified to perform limited or full maintenance on the KG-82 may perform limited maintenance on the KG-112.	NSA Policy Letter Serial: Y22-035-89, 1 June 1989.
Technicians certified to perform full maintenance on the KI-1A may perform full maintenance on the KI-1C.	NSA Policy Letter Serial: Y22-068-89, 22 December 1989.
Technicians certified to perform limited maintenance on the KG-94/94A may perform limited maintenance on the KG-95.	NSA Policy Letter Serial: Y22-008-91, 18 March 1991.
Operators of the KG-81/84/84A/94/194 equipment perform or verify strapping options (Only strapping functions are permitted. No maintenance.) provided Course L6AZS2E351-013 COMSEC Awareness Training and the applicable CQTPs have been completed.	NSA Policy Letter Serial: Y224-009-91, 10 December 1991.
Technicians certified to perform limited maintenance on the KG-40 may perform limited maintenance on the KG-40A.	NSA Policy Letter Serial: Y224-017-92, 8 May 1992.
Technicians certified to perform limited maintenance on the HGX-83 AKDC may perform limited maintenance on the KGX-93 AKDC.	NSA Policy Letter Serial: Y224-027-92, 6 August 1992.
Technicians certified to perform limited maintenance or full maintenance on the KY-99 may perform limited maintenance on the KY-99A and the KY-100.	NSA Policy Letter Serial Y273-011-94, 6 July 1994
Technicians can perform maintenance on Embedded COMSEC devices containing EPROMS provided Course L6AZS2E351-013, COMSEC Awareness Training has been completed.	NSA Policy Letter Serial Y242-002-97, 9 January 1997
Technicians can perform maintenance on SINCGARS Radio with Embedded Device provided Course L6AZS2E351-013, COMSEC Awareness Training has been completed.	NSA Policy Letter Serial: Y242-002-97, 9 January 1997
Technicians certified to perform limited or full maintenance on the KY-99 may perform maintenance on the KY-99A.	NSA Policy Letter Serial: Y273-008-95, 15 August 1995

**Attachment 5****SAMPLE STP REQUEST LETTER**

MEMORANDUM FOR 344 TRS/TTSCD

FROM: 123 UNIT/OFFICE SYMBOL

Mailing Address

SUBJECT: Specialized Training Package (STP)

1. Request the below STP be sent to UNIT/OFFICE SYMBOL (or STP account code if already established).
2. The following is provided IAW AFI 21-109.
  - a. Course Number (e.g. L6AZS2E351-013).
  - b. Course title (e.g. COMSEC Awareness Training).
  - c. A qualified trainer is available.
  - d. All equipment, maintenance key material and technical manuals are on hand.
  - e. I certify that all trainees meet the AFSC prerequisites.
3. The POC is SSgt Doe, COMPLETE MAILING ADDRESS, DSN 123-4567, FAX DSN 123-4568.

IMAIN CHARGE, MAJ, USAF  
Commander